

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
6 November 2003 (06.11.2003)

PCT

(10) International Publication Number
WO 03/092201 A2

- (51) **International Patent Classification⁷:** **H04L**
- (21) **International Application Number:** PCT/IB03/01605
- (22) **International Filing Date:** 15 April 2003 (15.04.2003)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
02291027.7 23 April 2002 (23.04.2002) EP
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(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

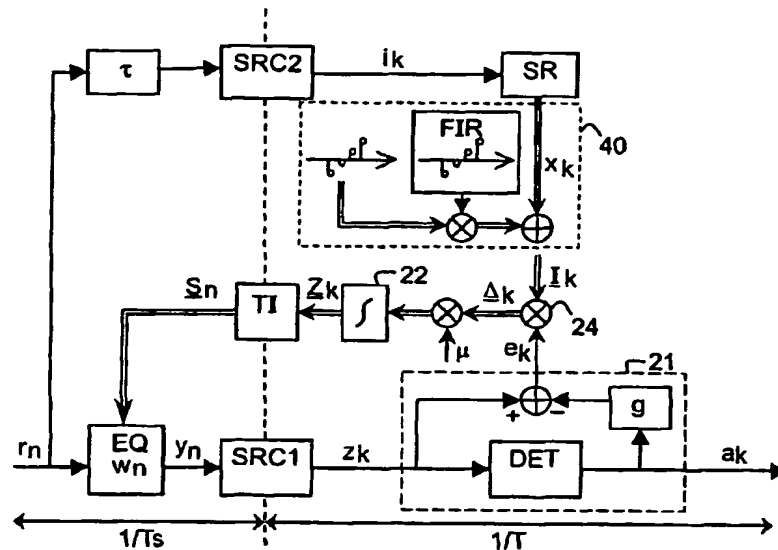
(84) **Designated States (regional):** ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: INTERFERENCE-FREE LMS-BASED ADAPTIVE ASYNCHRONOUS RECEIVER



(57) Abstract: The invention relates to an interference-free LMS-based asynchronous receiver for digital transmission and recording systems. The receiver, having an asynchronously placed LMS-based adaptive equalizer, has 2 control loops: a timing recovery loop (by means of, for instance a PLL (Phase locked loop) and an equalizer's adaptation loop. Interference between the two loops is avoided by deriving a condition the equalizer should fulfill to avoid the interference between the two loops, which implies "orthogonal control functionality" and by combining the condition with the equalizer's adaptation loop. The equalizer shall adapt so that the condition is always true.

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